

FIG. 1
PRIOR ART

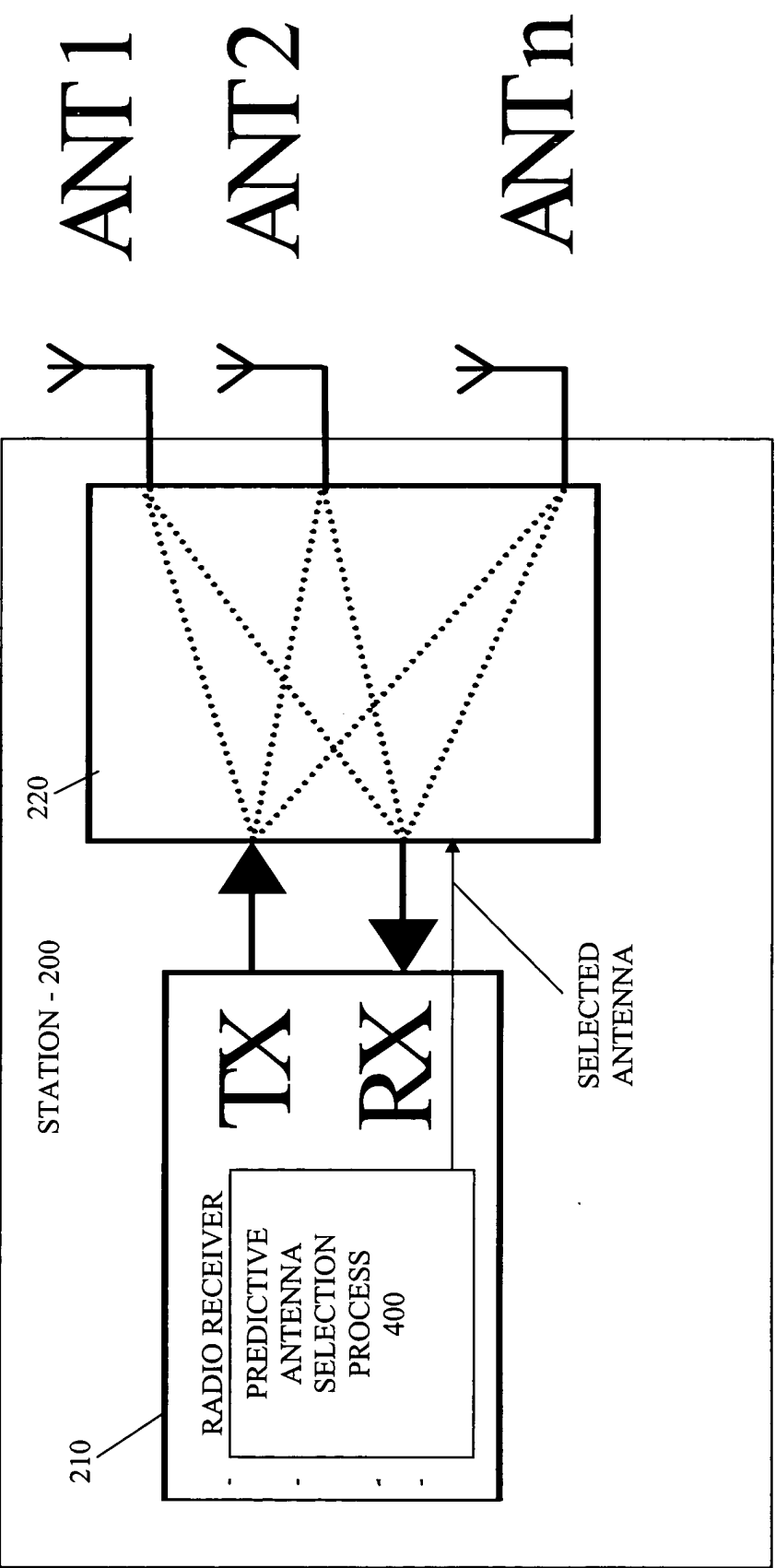


FIG. 2

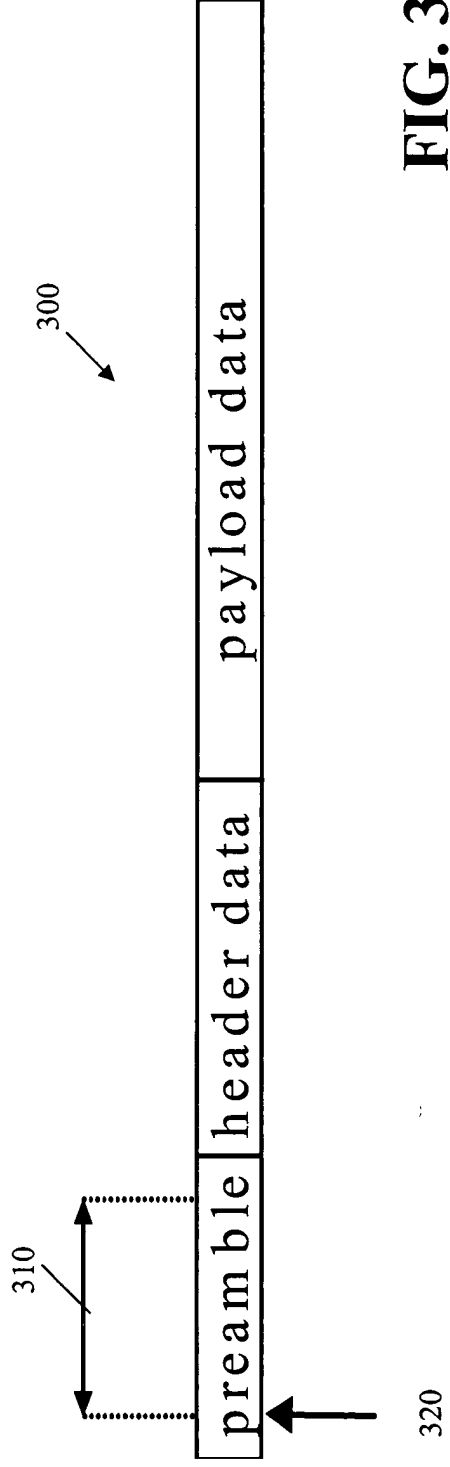


FIG. 3

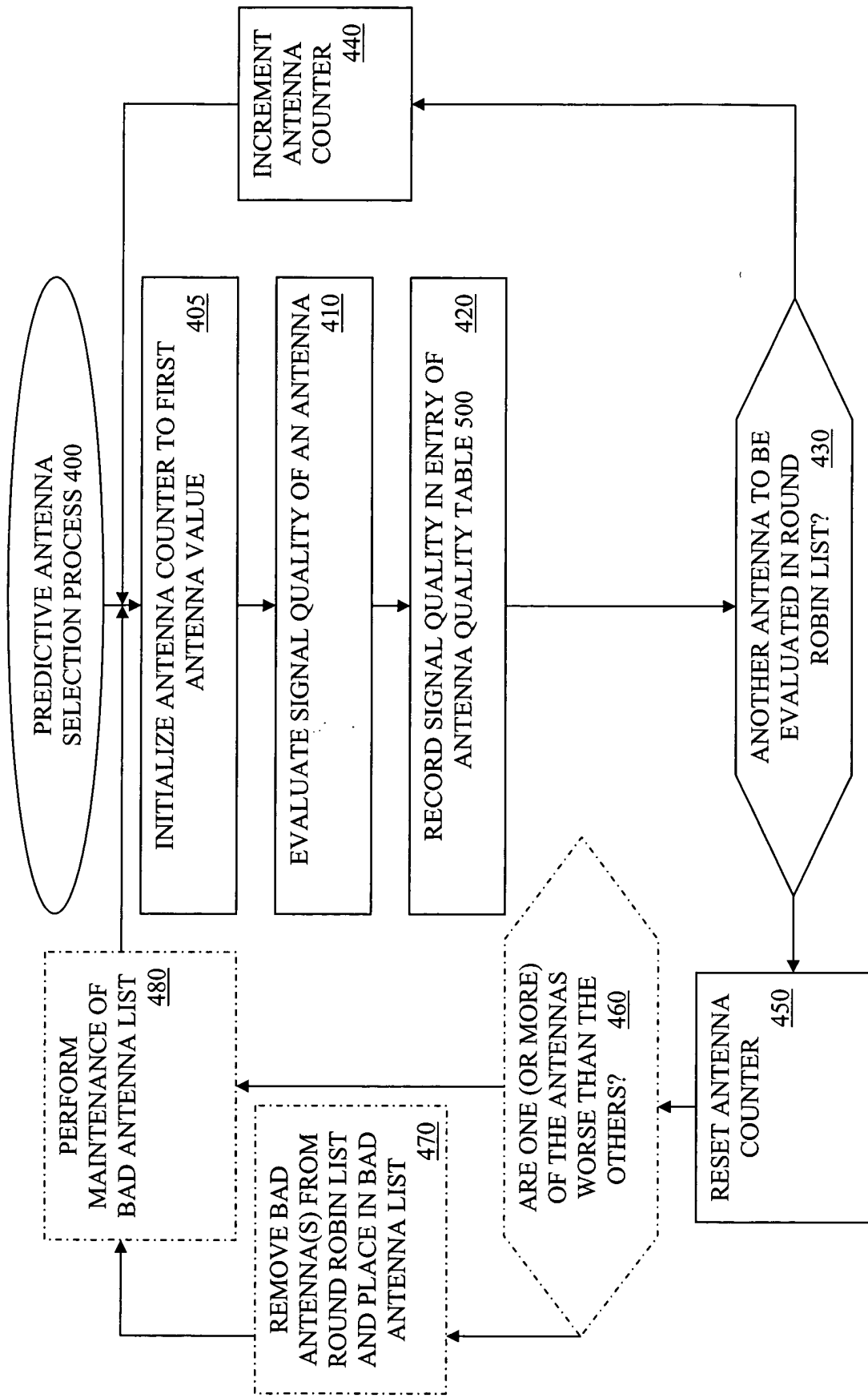


FIG. 4

500

510-1	510-2	510-n
Ant 1	Ant 2	Ant n
15	17	20

FIG. 5

FIG. 6A

```
// initialize variables
function Initialize () {
    list_of_good_antennas = 1..number_of_antennas;
    list_of_bad_antennas = empty;
    nr_good_receptions = 0;
    bad_reception = false;
    rx_antenna = first one in list_of_good_antennas;
    configure_receiver_antenna (rx_antenna);
    initialize Antenna Quality list;
}

// a frame has been received from the central node on antenna x, with a certain
signal quality
function FrameReceived (Antenna x, SignalQuality sq) {
    update value that belongs to antenna x in Antenna Quality list with new data sq
}

// select the next good antenna from the list of good antennas, EXCEPT that
once
// every 'max_good_receptions' one of the bad antennas is selected to refresh
its sq value
if nr_good_receptions = max_good_receptions then
    nr_good_receptions = 0;
    if list_of_bad_antennas is empty then // no bad antennas to
measure
        let rx_antenna = next one in list_of_good_antennas;
        increment nr_good_receptions;
    else
        let rx_antenna = next one in list_of_bad_antennas;
    fi
```

else **let** rx_antenna = next one in list_of_good_antennas;
 increment nr_good_receptions;

fi
 configure_receiver_antenna (rx_antenna);

 // put bad antennas in the 'bad' list, and put good antennas in the 'good' list
 if antenna x in list_of_good_antennas **AND**
 it is worse by (margin + hysteresis) than any other antenna in the Antenna
 Quality list **then**
 remove antenna x from list_of_good_antennas;
 insert antenna x into list_of_bad_antennas;
 else if antenna x in list_of_bad_antennas **AND**
 it is not worse by (margin - hysteresis) than any other antenna in the Antenna
 Quality list **then**
 remove antenna x from list_of_bad_antennas;
 insert antenna x into list_of_good_antennas;

 fi
 }

 // a frame is to be transmitted to node B
 function TransmitFrame (frame) {
 let tx_antenna = the antenna in the Antenna Quality list with the highest
 signal quality;
 configure_transmitter_antenna (tx_antenna);
 transmit (frame);
 }

FIG. 6B